



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,282	07/24/2001	David Perkinson	72127	5189

27975 7590 04/19/2005

ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A.  
1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE  
P.O. BOX 3791  
ORLANDO, FL 32802-3791

EXAMINER

ZHONG, CHAD

ART UNIT PAPER NUMBER

2152

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/912,282	Applicant(s) PERKINSON ET AL.	
	Examiner Chad Zhong	Art Unit 2152	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-11 are presented for examination.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohanian et al. (hereinafter Ohanian), US 6,122,287, in view of "Inverse ARP over Unidirectional Virtual Circuits", Heinanen et al. (hereinafter Heinanen), Internet Engineering Task Force, February 2001.

7. As per claim 1, Ohanian teaches for use with a frame relay network (Col. 6, lines 10-12) through which virtual circuits are established to enable communications between terminal equipments, a respective terminal equipment being coupled to said frame relay network by way of a processor-controlled frame relay communication device, a processor-executed auto-configuration routine for automatically configuring (Col. 9, lines 1-5; Col. 10, lines 1-10) said frame relay communication device for operation with said frame relay network comprising the steps of:

(a) during a time interval, monitoring said frame relay network for a poll from another frame relay communication device (Col. 5, lines 25-40, Col. 8, lines 30-38, wherein periodic monitoring of attempts to establish communications under a particular protocol in a frame relay network);

(b) in response to receiving a poll (wherein the poll is the ACK message) from another frame relay communication device during the time interval of step (a), automatically configuring said frame relay

Art Unit: 2152

communication device as a frame relay access device that uses the signaling protocol in the received poll and exiting said routine (Col. 5, lines 25-40; Col. 8, lines 30-40; Fig 3, item 120, 125, wherein the routine is terminated upon the detection of a correct compatible protocol); but

(c) in response to the expiration of said time interval without having received a poll from another frame relay communication device, transmitting one or more polling messages, using different signaling protocols, as necessary, over said frame relay network (Col. 5, lines 25-40, Col. 8, lines 30-38, wherein a different protocol is attempted if the original protocol fails after a number of tries); and

(d) in response to receiving a response from another frame relay communication device to a polling message transmitted in step (c), automatically configuring said frame relay communication device as a switch mode access device that uses the signaling protocol of the polling message to which a response was received, and exiting said routine (Col. 5, lines 25-40; Col. 8, lines 30-40; Fig 3, item 120, 125, wherein the routine is terminated upon the detection of a correct compatible protocol).

8. Ohanian does not explicitly teach random time interval.

9. Heinanen teaches random time interval (see for example, pg 2, lines 1-5; pg 3, lines 10-15) for the advantages of avoiding collisions of request signals, see for example, pg 3, lines 11-13.

10. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Ohanian and Heinanen because they both dealing with request making in frame relay networks. Furthermore, the teaching of Heinanen to allow transmission of requests at a random time interval would improve the latency and efficiency for Ohanian's system by using a random time signal to avoid collisions on the frame relay network.

11. As per claim 2, Ohanian teaches the processor-executed auto-configuration routine according to

claim 1, further comprising the step of:

(e) in response to failing to receive a response from another frame relay communication device to any polling message transmitted in step (c), repeating steps (a)-(d) as necessary, until either a poll or a response to a polling message is received from another frame relay communication device, and configuring said frame relay communication device in accordance with the signaling protocol of the received poll or response (see for example, Col. 8, lines 30-40; Fig 3).

12. As per claim 3, Ohanian does not explicitly teach the processor-executed auto-configuration routine according to claim 2, wherein step (e) comprises repeating steps (a)-(d) using a different random time interval.

13. Heinanen teaches using a random time signal for the advantages of collision avoidance, see for example, pg 3, lines 10-15

14. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Ohanian and Heinanen because they both dealing with request making in frame relay networks. Furthermore, the teaching of Heinanen to allow transmission of requests at a different random time interval would improve the latency and efficiency for Ohanian's system by using a random time signal to avoid collisions on the frame relay network. Furthermore, definition of Randomness is not the same occurring instances, Heinanen teaches 'different' random time intervals, occurring in different locations in the time domain.

15. As per claim 4, claim 4 is rejected for the same reasons as rejection to claim 1 above.

16. As per claim 6-7, claims 6-7 are rejected for the same reasons as rejection to claim 1 above.

17. As per claim 8, claim 8 is rejected for the same reasons as rejection to claim 2 above.

18. As per claim 9, claim 9 is rejected for the same reasons as rejection to claim 3 above.

19. Claims 5, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohanian et al. (hereinafter Ohanian), US 6,122,287, in view of "Inverse ARP over Unidirectional Virtual Circuits", Heinanen et al. (hereinafter Heinanen), Internet Engineering Task Force, February 2001, further in view of Williams et al (hereinafter Williams), US 6,144,669.

16. As per claim 5, Ohanian teaches the processor-executed auto-configuration routine according to claim 4, wherein said respective signaling protocol comprises a selected one of and GROUP OF 4 signaling protocols, and wherein said further signaling protocol comprises a selected other of said and GROUP OF 4 signaling protocols (Col. 8, lines 30-40; Col. 7, lines 55-67, it is noted that in Applicant's specification pg 11-12 the 'Group of 4' protocol is disclosed, specifically, 'Group of 4' protocol is another type of signaling protocol, see for example, pg 11, line 28 – pg 12, line 5, and within cited sections of Ohanian, various types of other signal protocols are being used for similar means).

However, Ohanian does not explicitly teach wherein said respective signaling protocol comprises a selected one of ANNEX D, ANNEX A protocols.

Williams teaches wherein said respective signaling protocol comprises a selected one of ANNEX D, ANNEX A protocols (see for example, Col. 5, lines 25-45) in order to support multiple frame relay signaling protocol standards (see for example, Col. 5, lines 25-30).

It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Ohanian, Heinanen and Williams in order to support multiple frame relay signaling protocol standards.

Art Unit: 2152

17. As per claim 10-11, claims 10-11 are rejected for the same reasons as rejection to claims 1, 5 above respectively.

*Conclusion*

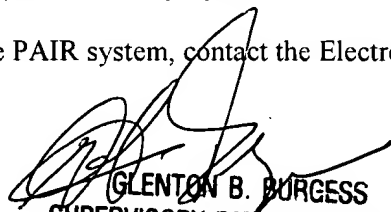
18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "MECHANISM FOR AUTOMATICALLY DETERMINING SIGNALING ROLE AND ASSOCIATED PROTOCOL OF FRAME RELAY COMMUNICATION DEVICE".

- i. US 6292472 Rariden et al.
- ii. US 6226296 Lindsey et al.
- iii. US 6108350 Araujo et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BURGESS, GLENTON B can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
GLENTON B. BURGESS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

Application/Control Number: 09/912,282

Page 7

Art Unit: 2152

CZ

March 1, 2005